Name: _____ **Class:** _____ **Date:** _____ **ID: A**

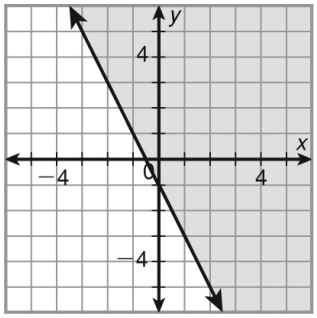
Geometry Chapter 1 Practice Test

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. In which quadrant is the coordinate pair $(-11, 1)$ located?

a. I
b. II
c. III
d. IV

____ 2. Which inequality is shown by the graph?



f. $y \geq -2x - 1$
g. $y \leq -2x - 1$
h. $y \geq -\frac{1}{2}x - 1$
j. $y \geq 2x - 1$

____ 3. If $f(x) = 3x - 5$, what is $f(-2)$?

a. $-6x + 10$
b. 1
c. $3x - 7$
d. -11

____ 4. Thirty-two is what percent of 80?

f. 4%
g. 25.6%
h. 40%
j. 256%

____ 5. A recipe for a dessert calls for 2 cups of blueberries and serves 9 people. Which equation can be solved to find the number of cups of blueberries needed to serve 30 people?

a. $\frac{2}{9} = \frac{n}{30}$

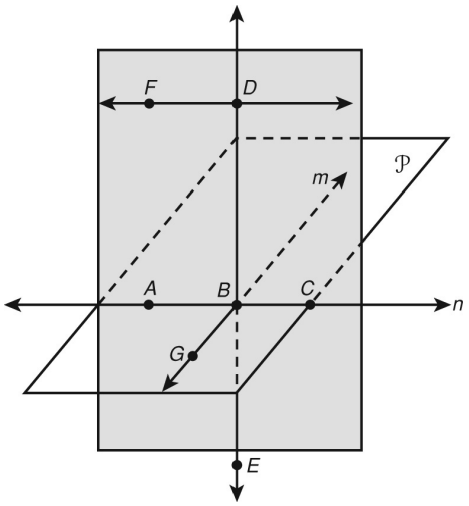
b. $\frac{2}{9} = \frac{30}{n}$

c. $2 \cdot 9 = 30n$

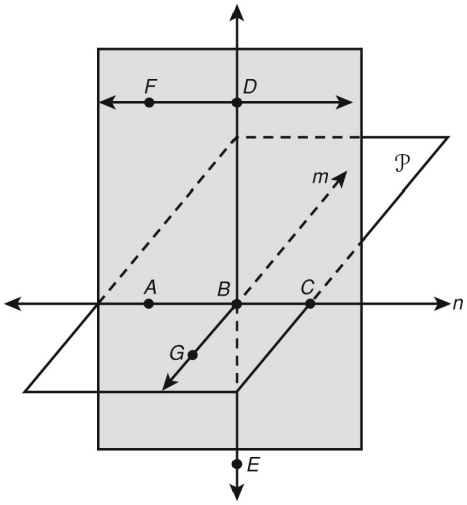
d. $9 \cdot 30 = \frac{n}{2}$

Short Answer

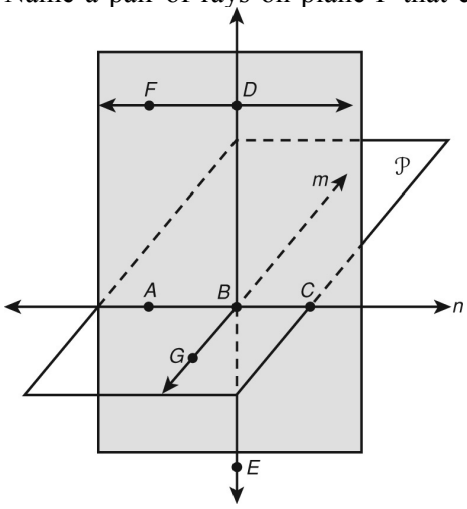
1. Name the plane containing line m in the figure.



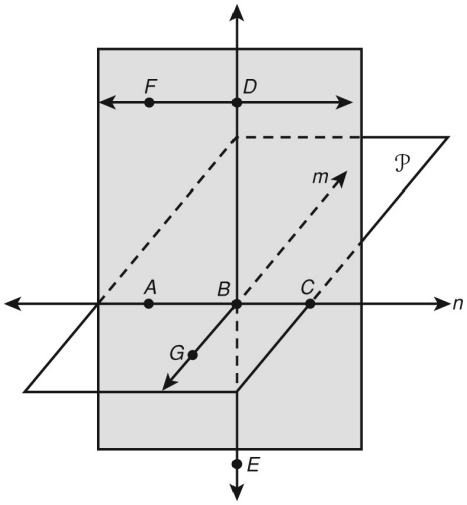
2. Name a segment on line *n*.



3. Name a pair of rays on plane P that contain *B* but do not have *B* as an endpoint.



4. Name three coplanar points NOT on plane P in the figure.



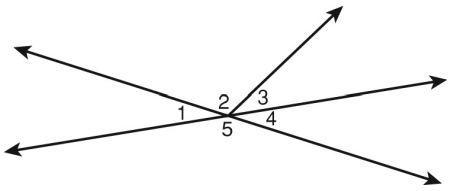
5. S is the midpoint of $\overline{RT}$, $RS = 2x + 4$, and $RT = 8x$. Find ST.

6. M bisects $\overline{QP}$, and $QP = 27.4$. Find QM.

7. $m\angle LMP = 132°$. Classify the angle as acute, right, or obtuse.

8. $\overrightarrow{XZ}$ bisects $\angle WXY$, and $m\angle WXZ = 65°$. Find $m\angle WXY$.

9. Name a pair of vertical angles.



10. An angle measures three times the measure of its supplementary angle. Find the measure of both angles.

11. An angle measures 10° less than the measure of its complementary angle. Find the measure of both angles.

12. Find the area of a rectangle with a length of $x + 3$ meters and a width of $2x$ meters. Express your answer in terms of x.

13. The area of a triangle is 8.25 square centimeters. If the base of the triangle is 3 centimeters, what is the height?

14. Find the radius of a circle with a circumference of 100π inches.

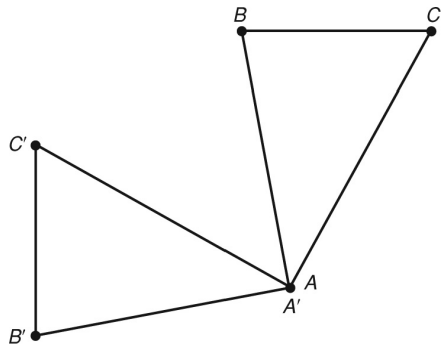
15. Find the coordinates of the midpoint of $\overline{GH}$ with endpoints $G(3a, 3a)$ and $H(-a, -7a)$.

16. M bisects $\overline{RS}$. R has coordinates $(-2, -3)$, and M has coordinates $(1, 0)$. find the coordinates of S.

17. $\overline{AB}$ has endpoints $A(-6, -4)$ and $B(-1, 8)$. $\overline{CD}$ has endpoints $D(2, 5)$ and $C(14, 0)$. FInd the lengths of the two segments and determine if they are congruent.

18. A ladder is leaning against a building. The distance from the building to the bottom of the ladder is 7 feet. The ladder is 25 feet long. How high up the building is the top of the ladder?

19. Identify the transformation.



20. A transformation maps E onto F and G onto H. Identify the preimage of H.

Geometry Chapter 1 Practice Test
Answer Section

MULTIPLE CHOICE

1. ANS: B PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 1
   MSC: DOK 1
2. ANS: F PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 1
   MSC: DOK 2
3. ANS: D PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 1
   MSC: DOK 1
4. ANS: H PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 1
   MSC: DOK 2
5. ANS: A PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 1
   MSC: DOK 2

SHORT ANSWER

1. ANS:
   Possible answers: Plane P , or the plane determined by G along with any two points on line n, such as ABG

   PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
   MSC: DOK 1
2. ANS:
   Possible answers: $\overline{AB}$, $\overline{BC}$, or $\overline{AC}$

   PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
   MSC: DOK 2
3. ANS:
   any two of $\overrightarrow{GB}$, $\overrightarrow{AB}$, $\overrightarrow{AC}$, and $\overrightarrow{CB}$

   PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
   MSC: DOK 2
4. ANS:
   D, E, and *F*

   PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
   MSC: DOK 2
5. ANS:
   8 units

   PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
   MSC: DOK 2

6. ANS:
13.7 units

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

7. ANS:
obtuse

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 1

8. ANS:
130°

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

9. ANS:
$\angle 1$ and $\angle 4$

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

10. ANS:
45° and 135°

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

11. ANS:
40° and 50°

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

12. ANS:
$2x^2 + 6x$ units^2

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

13. ANS:
5.5 cm

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

14. ANS:
50 in.

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

15. ANS:
$(a, -2a)$

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

16. ANS:
(4, 3)

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

17. ANS:
$AB = CD = 13$; the segments are congruent.

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

18. ANS:
24 ft

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

19. ANS:
rotation

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2

20. ANS:
G

PTS: 1 DIF: 2 TOP: Chapter 1 Free Response Test, Form C
MSC: DOK 2